



**RF Power Module**

**Power = 50.0 Watts**

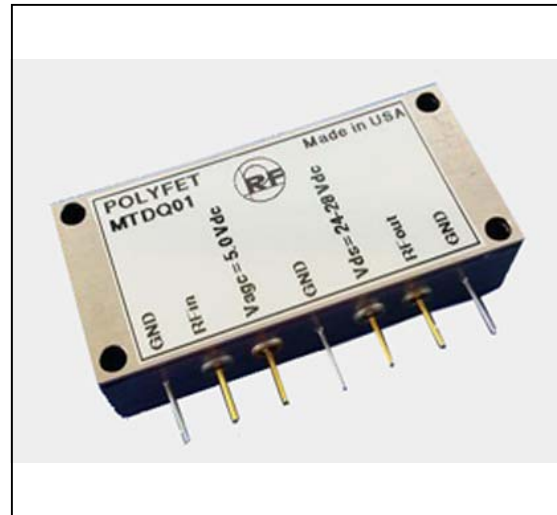
**Bandwidth = 20.0 to 520 Mhz**

**Gain = 13.0 dB    Vdd =24.0 Volts**

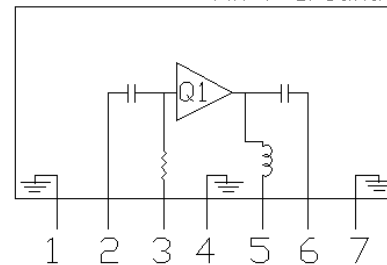
**50 ohms Input/Output Impedance**

**Description**

The MTDQ01 is a 50 Watt, single stage amplifier module covering a bandwidth of 20-520 Mhz. This compact module design is suitable for military applications in a rugged environment. An ALC pin out is provided to control the output power, gain and blanking of the module.



Pin 1=Ground    Pin 4=Ground  
 Pin 2=RF in    Pin 5=Vdd  
 Pin 3=VAGC    Pin 6=RF out  
 Pin 7=Ground



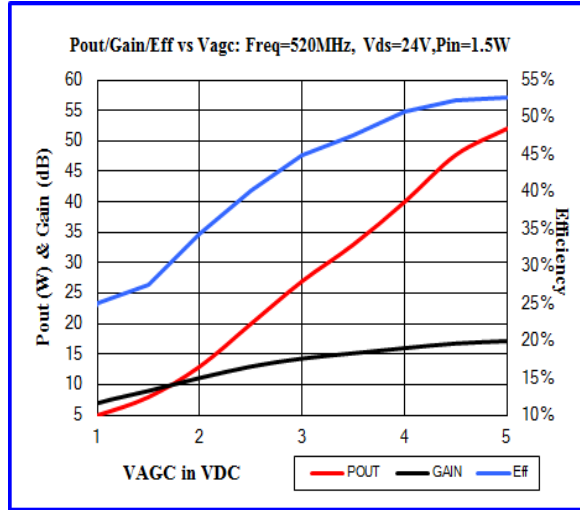
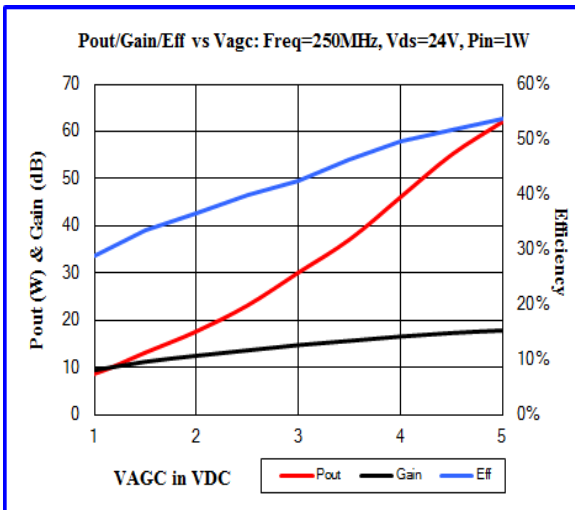
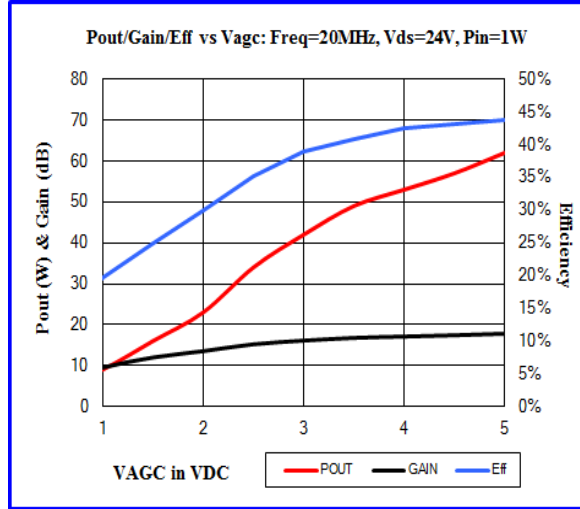
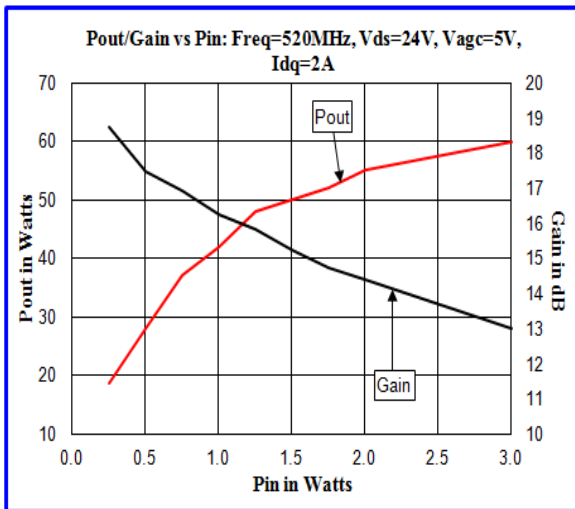
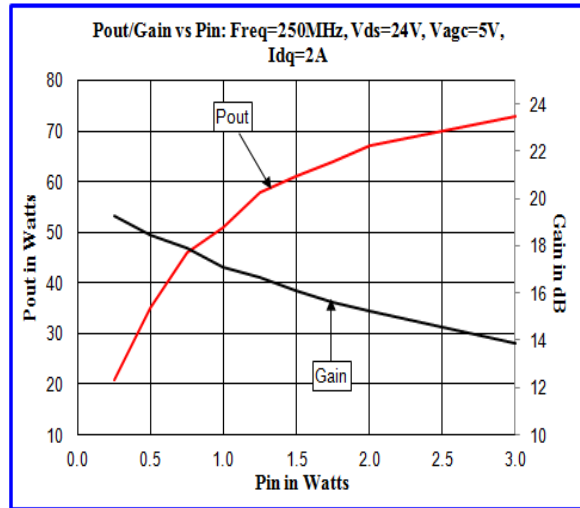
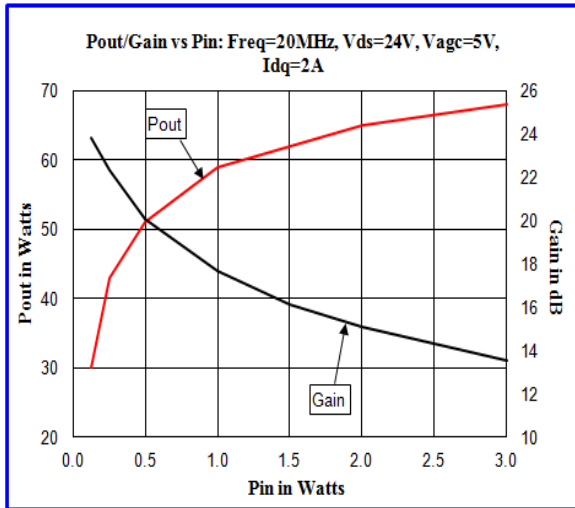
**Absolute Maximum Ratings (T=25 °C)**

Parameter	Symbol	Value	Unit
DC supply Voltage 1	VDD1	32.0	V
DC supply Voltage 2	VDD2		V
AGC Voltage	VAGC	5.5	V
AGC Current	VAGCI	6.00	mA
Input Power	Pin	10.000	W
Output Power	Pout	65.0	W
Operating Case Temp.	Tc	-40 to +85	°C
Storage Temperature	Tstg	-55 to +100	°C

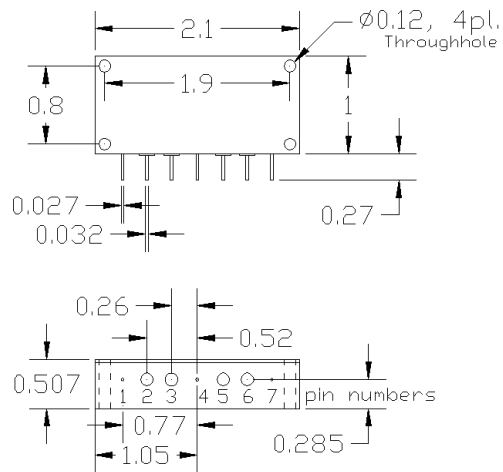
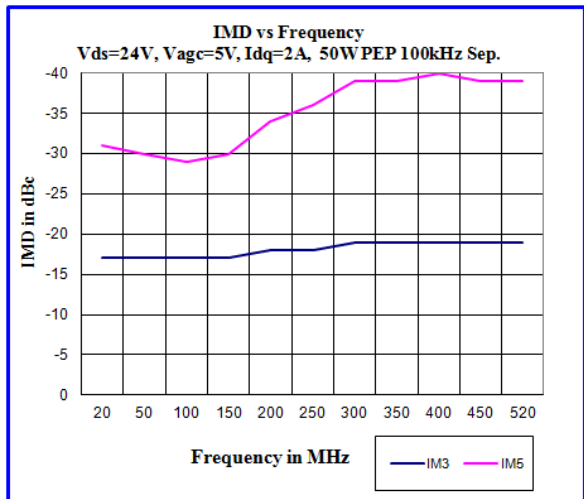
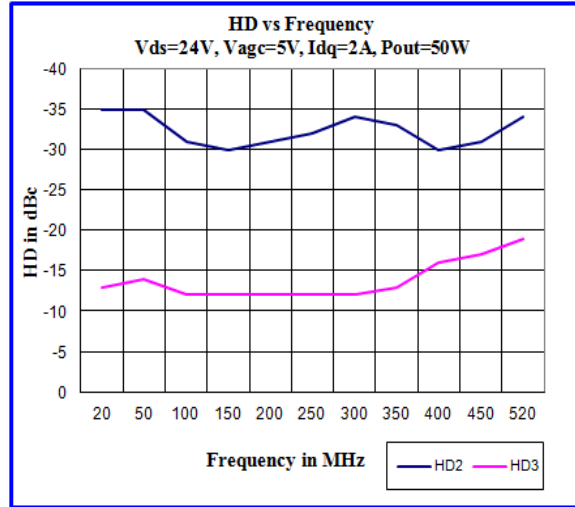
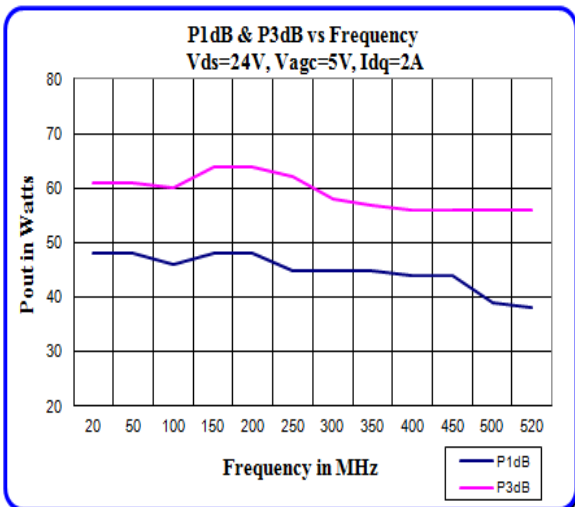
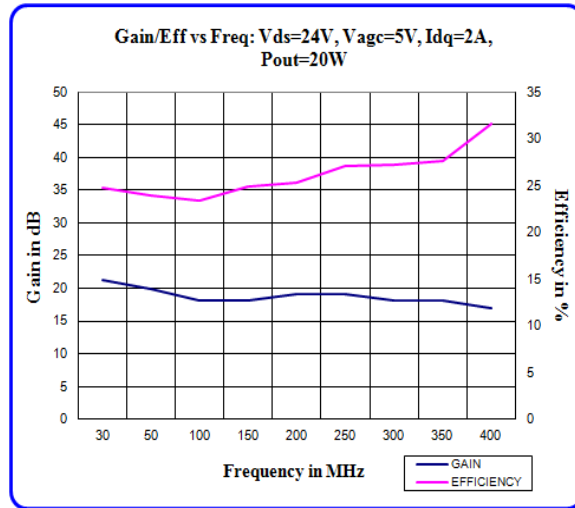
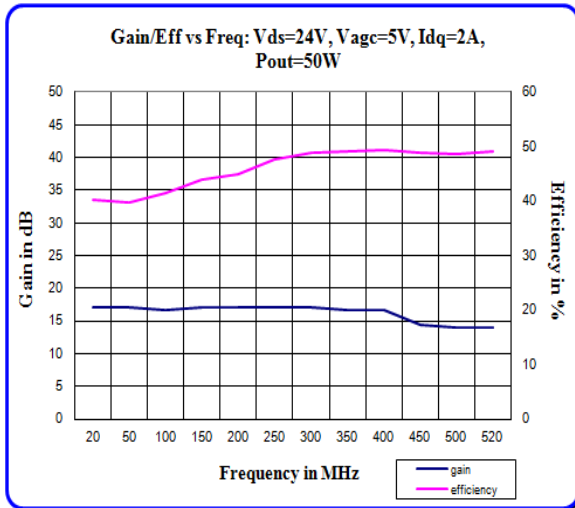
**Electrical Characteristics: ( T=25 °C Zs=Zl=50 ohms, Vdd = 24.0 Volts, Idq = 2.0 Amps )**

Parameter	Symbol	Min	Typical	Max	Unit	Test Conditions
Frequency Range	BW	20.0		520	Mhz	50 ohm load
Output Power	Po	50.0			Watts	Pin = 34.0 dbm    Vagc = 5.00 V
Power Gain	PG	13.0			dB	Pout = 50.0 Watts    Vagc = 5.00 V
Total Efficiency	$\eta$		40		%	Pout = 50.0 Watts
2nd Harmonics	dso	-25.00	-35.00		dBc	Pout = 50.0 Watts @    Mhz
Intermod - 2 tone	Im3		-15.00		dBc	AvePwr= 25.0 Watts
Load Mismatch Tolerance	VSWR	10:1			Relative	All Phase Angles    Pout = 50.0 W
Vagc Voltage	VAGC			5.00	V	Pin = 34.0 dBm, Pout = 50.0 W
Pulse Response Time	Pr			50.0	uS	Pulse source: Vagc

# MTDQ01



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POLYFET RF DEVICES

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